Description: Video Transmission System

Features

✔ One- or two-channel versions
✔ OAGC circuitry
✔ Works with all cameras
✔ Transmits up to 3.2 mi (5.2 km)
✔ Standalone or rack modules
✔ Dual-channel rack modules
✔ Forever Warranty™

Description

Fiber Options’ S700V Series Video system is designed to transmit one or two channels of baseband composite video up to 3.2 miles (5.2 km). It provides superior performance and reliability at an economical price. The S700V is available in three versions: (1) compact standalone modules providing one video channel on one fiber, (2) rack-mounted cards providing one video channel on one fiber, and (3) rack-mounted cards that support two video channels on two fibers. The S700V Series meets the challenge for a low cost, high performance fiber optic video transmission system. The S700V and S702V model series are compatible with models in the 110V and 110V2 model series.

Basic Model Descriptions

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S700V</td>
<td>Transmits one channel of video over one multimode fiber</td>
</tr>
<tr>
<td>S702V</td>
<td>Transmits two channels of video over two multimode fibers</td>
</tr>
</tbody>
</table>

For a complete list of available models, please refer to Table 1.
SERIES S700V & S702V
TECHNICAL INFORMATION

ELECTRICAL
Input Voltage:
- Standalone Modules: 12-16 VAC, 12-16 VDC
- Rack Units: 13.5 - 16 VDC
Current Requirement: 35 mA
Rack Module Power Factor: 1*
Power Consumption
- @ 14 V: 1.4 W
- Heat Equivalent**: 0.08 btu/min (0.02 cal/min)

*For an explanation of the Power Factor, please see the product specification for the 515R or 517R racks or the Fiber Finder.

**This represents the conversion of all input power to heat. The actual heat generated will be less.

VIDEO SIGNAL
Number of Channels:
- S700V: 1
- S702V: 2
Standards Supported: EIA, CCIR, NTSC, PAL
Video Input Signal: 1.0 V p-p composite
Input/Output Impedance: 75 Ω
Video Output Signal: 1.0 V p-p composite
Output Gain: Unity
Signal-to-Noise Ratio: > 50 dB @ maximum optical attenuation
Video Bandwidth: 8 MHz ± 1 dB
Frequency Response: 15 MHz
Video Resolution: > 640 TV lines
Differential Phase: < 1.7º
Tilt: < 1.6%

VIDEO INTERCONNECTION
Recommended Maximum Distances
- Video Equip to Tx: ≤100 ft (30 m)
- Rx to Video Equip: ≤100 ft (30 m)
Recommended Cable Type: RG59/U coaxial cable (Belden No. 9259 or equivalent)

AGENCY COMPLIANCE
Emissions: FCC Part 15, ICES-003, AS/NZS 3548, EN55022
Immunity: ENVS0204, EN61000-4-2, 3, 4, 5, 6, 11
Safety: UL1950, CAN/CSA 22.2, NO.950-95

FCC PART 15 COMPLIANT

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### SERIES S700V & S702V
#### TECHNICAL INFORMATION

**OPTICAL**
- **Wavelength:** 850 nm
- **Optical Mode:** Multimode
- **Signal Direction:** Tx → Rx
- **Optical Budget:** 13 dB
- **Operating Distance:** 3.2 mi (5.2 km)
- **Emitter Type:** LED
- **Fiber Type:** 62.5 µm

*Operating distance is approximate and assumes best fiber. It will be affected by the type and number of splices in the fiber.

**Modulation Type:** Intensity modulation
**Gain Control:** Optical automatic (OAGC)
**Transmitter Launch Power:** -15 dBm
**Receiver Sensitivity:** -28 dBm

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**CONNECTORS**
- **Signal Input/Output:**
  - Optical: ST type
  - Video: BNC
  - Power Input: 3-pin screw terminal

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**OPTIONS**
- **Power Supply:** Model 610P (AC)

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**INDICATORS**
- **Receiver:**
  - Standalone: Level/Loss™
  - Rack: Level/Loss™
- **Transmitter:** None

---

**FIGURE 1: SYSTEM DIAGRAMS**

*Not shown above: A single S702VT-R transmitter may also be used to interface with a single S702VR-R receiver.*

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**SERIES S700V & S702V**

**TECHNICAL INFORMATION**

### ENVIRONMENTAL

| Temperature Range in Operation: | -40° to +167° F | -40° to +75° C |
| Temperature Range in Storage:   | -40° to +185° F | -40° to +85° C |

| Humidity Range in Operation:    | 0 - 95% relative, noncondensing |
| Humidity Range in Storage:      | 0 - 95% relative, noncondensing |

### MECHANICAL

**Standalone Modules**

- **Dimensions:**
  - Length: 5.0 in (127 mm)
  - Width: 2.62 in (67 mm)
  - Height: 1.54 in (39 mm)
- **Weight:** 10.7 oz (0.31 kg)
- **Construction:** Steel
- **Finish:** Grey textured paint
- **Mounting Method:** 4 - No. 6 (3 mm) screws

**Rack Modules**

- **Module Width:** 1 slot, 1.0 in (25.4 mm)
- **Weight:**
  - S700VT-R: 0.49 lb (0.22 kg)
  - S702VT-R: 0.61 lb (0.28 kg)
- **Construction:**
  - S700VT-R: Aluminum
  - S702VT-R: Black semigloss paint

### TABLE 1: MODEL VARIATIONS

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Function</th>
<th>Enclosure Type*</th>
<th>Fiber Size</th>
<th>No. of Fibers</th>
<th>Max. Attenu.</th>
<th>Wave-length</th>
<th>Power Supply Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>S700VT</td>
<td>Transmitter</td>
<td>4 X 2 X 1</td>
<td>62.5</td>
<td>1</td>
<td>13 dB</td>
<td>850</td>
<td>610P</td>
</tr>
<tr>
<td>S700VR</td>
<td>Receiver</td>
<td>4 X 2 X 1</td>
<td>62.5</td>
<td>1</td>
<td>13 dB</td>
<td>850</td>
<td>610P</td>
</tr>
<tr>
<td>S702VT</td>
<td>Transmitter</td>
<td>4 X 2 X 1</td>
<td>62.5</td>
<td>2</td>
<td>13 dB</td>
<td>850</td>
<td>610P</td>
</tr>
</tbody>
</table>

**Rack-Mount Modules**

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Function</th>
<th>Enclosure Type*</th>
<th>Fiber Size</th>
<th>No. of Fibers</th>
<th>Max. Attenu.</th>
<th>Wave-length</th>
<th>Power Supply Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>S700VT-R</td>
<td>Transmitter</td>
<td>515R1, 517R1</td>
<td>62.5</td>
<td>1</td>
<td>13 dB</td>
<td>850</td>
<td>powered by rack</td>
</tr>
<tr>
<td>S700VR-R</td>
<td>Receiver</td>
<td>515R1, 517R1</td>
<td>62.5</td>
<td>1</td>
<td>13 dB</td>
<td>850</td>
<td>powered by rack</td>
</tr>
<tr>
<td>S702VT-R</td>
<td>Transmitter</td>
<td>515R1, 517R1</td>
<td>62.5</td>
<td>2</td>
<td>13 dB</td>
<td>850</td>
<td>powered by rack</td>
</tr>
<tr>
<td>S702VR-R</td>
<td>Receiver</td>
<td>515R1, 517R1</td>
<td>62.5</td>
<td>2</td>
<td>13 dB</td>
<td>850</td>
<td>powered by rack</td>
</tr>
</tbody>
</table>

*For exact dimensions, see the MECHANICAL section.

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FIGURE 2: S700V STANDALONE MODULES

FIGURE 3: S700V STANDALONE MODULE REMOVABLE MOUNTING PLATE
S700V & S702V

Product Specification

THE FOREVER WARRANTY

Fiber Options warrants that, at the time of shipment, the products manufactured by Fiber Options will be free from defects in material and workmanship. Should any defects appear in the product, Fiber Options shall repair or replace the product or supply an equivalent, at its sole discretion. A Return Authorization (RA) number is required to send the unit back in case return is necessary. Return shipments to Fiber Options shall be at the buyer’s expense. Fiber Options will return said equipment prepaid via best way.

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12-0700-010406

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